Amendments to the Claims:

1. (previously presented) A method of inducing hair cell generation or inner-ear-supporting cell growth, regeneration, and/or proliferation, comprising contacting an inner-ear-supporting cell which expresses HER2 and/or HER3 receptors with an effective amount of an isolated ligand which activates HER2 and/or HER3 receptors, said isolated ligand comprising a heregulin polypeptide selected from the group consisting of heregulin-β2 (SEQ ID NO: 5), heregulin-β2-like polypeptide (SEQ ID NO: 9), heregulin-β3 (SEQ ID NO: 7), heregulin γ (SEQ ID NO: 11), heregulin-α (SEQ ID NO: 1) variants, heregulin-β1 (SEQ ID NO: 3) variants, heregulin-β2 (SEQ ID NO: 5) variants, heregulin-β2-like polypeptide (SEQ ID NO: 9) variants, heregulin-β3 (SEQ ID NO: 7) variants, heregulin γ (SEQ ID NO: 11) variants, heregulin-α (SEQ ID NO: 1) fragments, heregulin-β1 (SEQ ID NO: 3) fragments, heregulin-β2 (SEQ ID NO: 5) fragments, heregulin-β2-like polypeptide (SEQ ID NO: 9) fragments, heregulin-β3 (SEQ ID NO: 7) fragments, heregulin γ (SEQ ID NO: 11) fragments, heregulin agonist antibody and heregulin agonist antibody fragments.

2. (currently amended) The method of claim 1, wherein the ~~activating ligand~~ isolated ligand which activates HER2 and/or HER3 receptors is a heregulin-α variant, heregulin agonist antibody or fragment thereof capable of binding to the HER2 or HER3 receptor, wherein said heregulin-α variant is selected from the group of heregulin-α variants having an amino acid substitution, deletion or insertion at one or more amino acid residues corresponding to positions 2, 3, 8, 9, 23, 24, 33, 34, 36, 37, 42, 43, 45, 46, 48, 49, 62-67, 86, 87, 110, 111, 123, 124, 134, 135, 142, 143, 151, 152, 164-166, 170-172, 208-218, 226-254, 256-265, 272, 273, 278, 279, 285-309, 437, and 608- 611 in the heregulin-α amino acid sequence of SEQ ID NO: 1.

3. (currently amended) The method of claim 1, wherein the ~~activating ligand~~ isolated ligand which activates HER2 and/or HER3 receptors is a human heregulin polypeptide or a fragment thereof.

4. (currently amended) The method of claim 1, wherein the ~~activating ligand~~ isolated ligand which activates HER2 and/or HER3 receptors is selected from the group consisting of HRG-α variants, -β1 variants, -β2, -β2 variants, -β2-like polypeptide, -β2-like polypeptide variants, -β3, and -β3 variants, and fragments thereof.

5. (currently amended) The method of claim 1, wherein the ~~activating ligand~~ isolated ligand which activates HER2 and/or HER3 receptors is γ-HRG or a variant or a fragment thereof.

6. (currently amended) ~~The method of claim 1,~~ A method of inducing hair cell generation or inner-ear-supporting cell growth, regeneration, and/or proliferation, comprising contacting an inner-ear-supporting cell which expresses HER2 and/or HER3 receptors with an effective amount of an isolated ligand which activates HER2 and/or HER3 receptors, wherein the ~~activating ligand~~ isolated ligand which activates HER2 and/or HER3 receptors is a recombinant human heregulin polypeptide or a fragment thereof.

7. (previously presented) The method of claim 1, wherein the supporting cell is in a cochlear implant.

8. (currently amended) The method of claim 1, wherein the ~~activating ligand~~ isolated ligand which activates HER2 and/or HER3 receptors is administered at a daily dose of about 1 μg/kg to 100 mg/kg.

9. (currently amended) The method of claim 1, wherein the ~~activating ligand~~ isolated ligand which activates HER2 and/or HER3 receptors is a heregulin agonist antibody.

10. (original) The method of claim 1, wherein the contacting is by administration to a patient in need thereof.

11. (original) The method of claim 6, wherein the heregulin is rHRG-.beta.1-177-244.

12. (original) The method of claim 1, wherein the inner-ear-supporting cell is in the utricle or cochlea.

13. (canceled)

14. (previously presented) A method of increasing the number of inner-ear-supporting cells, comprising administering to a patient in need thereof an effective amount of an isolated HER2 and/or HER3 activating ligand comprising a heregulin polypeptide selected from the group consisting of heregulin-β2 (SEQ ID NO: 5), heregulin-β2-like polypeptide (SEQ ID NO: 9), heregulin-β3 (SEQ ID NO: 7), heregulin γ (SEQ ID NO: 11), heregulin-α (SEQ ID NO: 1) variants, heregulin-β1 (SEQ ID NO: 3) variants, heregulin-β2 (SEQ ID NO: 5) variants, heregulin-β2-like polypeptide (SEQ ID NO: 9) variants, heregulin-β3 (SEQ ID NO: 7) variants, heregulin γ (SEQ ID NO: 11) variants, heregulin-α (SEQ ID NO: 1) fragments, heregulin-β1 (SEQ ID NO: 3) fragments, heregulin-β2 (SEQ ID NO: 5) fragments, heregulin-β2-like polypeptide (SEQ ID NO: 9) fragments, heregulin-β3 (SEQ ID NO: 7) fragments, heregulin γ (SEQ ID NO: 11) fragments, heregulin agonist antibody and heregulin agonist antibody fragments.

15. (previously presented) The method of claim 14, wherein the activating ligand is a heregulin-α variant, heregulin agonist antibody or fragment thereof capable of binding to the HER2 or HER3 receptor, wherein said heregulin-α variant is selected from the group of heregulin-α variants having an amino acid substitution, deletion or insertion at one or more amino acid residues corresponding to positions 2, 3, 8, 9, 23, 24, 33, 34, 36, 37, 42, 43, 45, 46, 48, 49, 62-67, 86, 87, 110, 111, 123, 124, 134, 135, 142, 143, 151, 152, 164-166, 170-172, 208-218, 226-254, 256-265, 272, 273, 278, 279, 285-309, 437, and 608- 611 in the heregulin-α amino acid sequence of SEQ ID NO: 1.

16. (previously presented) A method of treating a hair cell related hearing disorder, comprising administering to a patient in need thereof an effective amount of an isolated HER2 and/or HER3 activating ligand comprising a heregulin polypeptide selected from the group consisting of heregulin-β2 (SEQ ID NO: 5), heregulin-β2-like polypeptide (SEQ ID NO: 9), heregulin-β3 (SEQ ID NO: 7), heregulin γ (SEQ ID NO: 11), heregulin-α (SEQ ID NO: 1) variants, heregulin-β1 (SEQ ID NO: 3) variants, heregulin-β2 (SEQ ID NO: 5) variants, heregulin-β2-like polypeptide (SEQ ID NO: 9) variants, heregulin-β3 (SEQ ID NO: 7) variants, heregulin γ (SEQ ID NO: 11) variants, heregulin-α (SEQ ID NO: 1) fragments, heregulin-β1 (SEQ ID NO: 3) fragments, heregulin-β2 (SEQ ID NO: 5) fragments, heregulin-β2-like polypeptide (SEQ ID NO: 9) fragments, heregulin-β3 (SEQ ID NO: 7) fragments, heregulin γ (SEQ ID NO: 11) fragments, heregulin agonist antibody and heregulin agonist antibody fragments.

17. (previously presented) The method of claim 16, wherein the activating ligand is a heregulin-α variant, heregulin agonist antibody or fragment thereof capable of binding to the HER2 or HER3 receptor, wherein said heregulin-α variant is selected from the group of heregulin-α variants having an amino acid substitution, deletion or insertion at one or more amino acid residues corresponding to positions 2, 3, 8, 9, 23, 24, 33, 34, 36, 37, 42, 43, 45, 46, 48, 49, 62-67, 86, 87, 110, 111, 123, 124, 134, 135, 142, 143, 151, 152, 164-166, 170-172, 208-218, 226-254, 256-265, 272, 273, 278, 279, 285-309, 437, and 608- 611 in the heregulin-α amino acid sequence of SEQ ID NO: 1.

18. (canceled)

19. (currently amended) The method of claim 1, wherein the ~~activating ligand~~ isolated ligand which activates HER2 and/or HER3 receptors is a heregulin-β variant, heregulin agonist antibody, or fragment thereof capable of binding to the HER2 or HER3 receptor, wherein said heregulin-β variant is selected from the group consisting of heregulin-β variants having an amino acid substitution at one or more amino acid residues corresponding to positions S177, H178, L179, V180, K181, E184, E186, K187,

T188, V191, N192, G193, G194, E195, M198, V199, K200, D201, N204, P205, S206, R207, Y208, L209, K211, P213, N214, E215, T217, G218, D219, Q222, N223, Y224, M226, S228, and F229 of SEQ ID NO: 5, SEQ ID NO: 7, or SEQ ID NO: 9, or of the mature polypeptide within SEQ ID NO: 3.

20. (previously presented) The method of claim 14, wherein the activating ligand is a heregulin-β variant, heregulin agonist antibody, or fragment thereof capable of binding to the HER2 or HER3 receptor, wherein said heregulin-β variant is selected from the group consisting of heregulin-β variants having an amino acid substitution at one or more amino acid residues corresponding to positions S177, H178, L179, V180, K181, E184, E186, K187, T188, V191, N192, G193, G194, E195, M198, V199, K200, D201, N204, P205, S206, R207, Y208, L209, K211, P213, N214, E215, T217, G218, D219, Q222, N223, Y224, M226, S228, and F229 of SEQ ID NO: 5, SEQ ID NO: 7, or SEQ ID NO: 9, or of the mature polypeptide within SEQ ID NO: 3.

21. (previously presented) The method of claim 16, wherein the activating ligand is a heregulin-β variant, heregulin agonist antibody, or fragment thereof capable of binding to the HER2 or HER3 receptor, wherein said heregulin-β variant is selected from the group consisting of heregulin-β variants having an amino acid substitution at one or more amino acid residues corresponding to positions S177, H178, L179, V180, K181, E184, E186, K187, T188, V191, N192, G193, G194, E195, M198, V199, K200, D201, N204, P205, S206, R207, Y208, L209, K211, P213, N214, E215, T217, G218, D219, Q222, N223, Y224, M226, S228, and F229 of SEQ ID NO: 5, SEQ ID NO: 7, or SEQ ID NO: 9, or of the mature polypeptide within SEQ ID NO: 3.